

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. Priority

The applicants respectfully request an acknowledgment in the next Office communication that the priority documents filed on June 23, 2005 have been received.

2. Drawings

The applicants respectfully request an indication in the next Office communication that the drawings filed on November 26, 2003 are acceptable.

3. In the claims

As shown in the foregoing AMENDMENT TO THE CLAIMS, the claims have been amended to more clearly point out the subject matter for which protection is sought.

Claim 1 is amended to recite that the dust removing unit is disposed on the linear path, and allows the suction air stream to pass therethrough. It is respectfully submitted that no new matter is added since support for the amendment is clearly found in Figs. 1, 2, 5, 7, 8, 9, 10, and 14 of the pending application and at least on page 9, lines 11-21, page 10, lines 9-10, and page 11, lines 16-26 of the accompanying description in the specification.

Claim 2 is amended to recite that the dust removing unit is disposed on a linear path in which the suction stream passes through the dust collecting unit into the electric blower, and allows the suction air stream to pass therethrough. It is respectfully submitted that no new matter is added since support for the amendment is clearly found in Figs. 1, 2, 5, 7, 8, 9, 10, and 14 of the pending application and at least on page 9, lines 11-21, page 10, lines 9-10, and page 11, lines 16-26 of the accompanying description in the specification.

Claims 3, 4, and 6-15 are left unchanged.

Claim 5 is canceled.

New claim 16 depends from claim 1 and recites that the dust removing unit has a plurality of air permeable openings of a grid shape. It is respectfully submitted that no new matter is added since support for the amendment is clearly found in Figs. 1, 2, 9, and 10 of the pending application and at least on page 10, lines 9-10 of the accompanying description in the specification.

New claim 17 depends from claim 2 and recites that the dust removing unit has a plurality of air permeable openings of a grid shape. It is respectfully submitted that no new matter is added since support for the amendment is clearly found in Figs. 1, 2, 9, and 10 of the pending application and at least on page 10, lines 9-10 of the accompanying description in the specification.

New claim 18 depends from claim 12 and recites that the dust removing unit has a plurality of air permeable openings of a grid shape. It is respectfully submitted that no new matter is added since support for the amendment is clearly found in Figs. 1, 2, 9, and 10 of the pending application and at least on page 10, lines 9-10 of the accompanying description in the specification.

Entry of the AMENDMENT TO THE CLAIMS is respectfully requested in the next Office communication.

4. Rejection of claims 1-4, 7-10, and 15 under 35 U.S.C. § 102(b) as being anticipated by Japanese publication no. JP 405192278A (*Murata et al.*)

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 1 and 2, on the basis that the *Murata* publication fails to disclose each and every limitation of amended claims 1 and 2. The remaining claims depend from either claim 1 or 2, and are therefore patentable as containing all of the limitations of claims 1 or 2, as well as for their respective recited features.

In this regard, the applicants draw attention to MPEP § 2131 which states that to anticipate a claim, the reference must teach every element of the claim. "A claim is

anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ...claim.” *Richardson v. Suzuki Motor co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. cir. 1990).

The *Murata* publication fails to disclose a dust removing unit disposed on a linear path of the suction air stream, and that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2.

The *Murata* publication discloses a vacuum cleaner having a dust collection bag 10 within a dust collection chamber 11 (abstract). A vibrator 13 and a piezoelectric vibrator 14 are also provided within dust collection chamber (abstract). While the vibrators 13, 14 function as a dust removing unit, neither are disposed on a linear path of the suction air stream and neither is disclosed as allowing the suction air stream to pass therethrough, as required by amended claims 1 and 2.

Specifically, as shown in Figs. 1 and 2 of the *Murata* publication, the vibrator 13 is disposed on an upper wall and a lower wall of a dust collecting chamber 11, and the piezoelectric vibrator 14 is disposed on a rear and upper side of the dust bag 10. The vibrators 13, 14 are clearly not disposed on a straight line connecting the inlet port 12 and a center of the motor 8, as is required by the structure recited in claims 1 and 2 in order to provide a linear path for the suction air stream. Moreover, the *Murata* publication does not mention an air permeability of the vibrators 13, 14, and thus fails to disclose a dust removing unit that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2.

In contrast, as fully described in the present application, the claimed embodiments require a dust removing unit that is placed on the linear path of the suction air stream and which allows the suction air stream to pass therethrough. Since the dust

removing unit is disposed on the linear path of the suction air stream, which is linearly defined from the inlet of the vacuum cleaner through to the motor of the vacuum cleaner, and it allows the suction air stream to pass therethrough, the effects of turbulence are reduced. Therefore, the embodiments recited in claims 1 and 2 reduce the effects of turbulence in the suction air stream, which can adversely affect the suction capability of the vacuum cleaner.

The *Murata* publication fails to disclose or suggest this recited structure. Instead, the *Murata* publication places a vibrator 14 offset to the linear path of the suction air stream in such a manner that turbulence may be created or enhanced.

In so far as the current rejection may be applicable to new claim 16, the *Murata* publication fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

In so far as the current rejection may be applicable to new claim 17, the *Murata* publication fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

Thus, since the *Murata* publication fails to disclose a dust removing unit disposed on a linear path of the suction air stream, and that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2, withdrawal of this rejection is respectfully requested. .

5. Rejection of claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 3,591,888 (*Takeda*)

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 1 and 2, on the basis that the *Takeda* patent fails to disclose each and every limitation of amended claims 1 and 2. The remaining claims depend from either claim 1 or 2, and are therefore patentable as containing all of the limitations of claims 1 or 2, as well as for their respective recited features.

The *Takeda* patent fails to disclose the suction air stream following a linear path and a dust removing unit disposed on a linear path of the suction air stream, and

that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2.

As discussed above in section 4, the structure of the claimed embodiments requires that the suction air stream pass through the dust collection unit and the dust removing unit in a linear path into the electric blower in order to reduce the effects of turbulence on the suction air stream.

In contrast, the embodiment of the *Takeda* patent that the rejection relies upon discloses a structure that inherently *increases* the turbulence of the suction air stream, and thus adversely affects the suction of the vacuum cleaner of the *Takeda* patent.

Specifically, the *Takeda* patent discloses a vacuum cleaner with a pleated dust collection means 9 (col. 4, lines 26-28). In Figs. 7-9, the *Takeda* patent discloses a filter cleaning member 25' having projections 29' which contact certain pleats 31 (col. 6, lines 1-13). The filter cleaning member 25' rotates on a shaft 44 such that the projections 29' contact the pleats 31 in succession to remove dust and particles from the filter (col. 6, lines 1-14).

The filter cleaning member 25' also has unlabeled passages that appear to allow the suction air stream to pass through. The size of these passageways is much smaller, relatively speaking, than the size of the suction air stream. Thus, the suction air stream must rotate, spin, and curve around in order to pass through the unlabeled passageways. Thus, the suction air stream does not follow a linear path through the vacuum cleaner, as required by amended claims 1 and 2, but instead follow a tortuous path. Such a tortuous path actually increases the amount and effect of turbulence on the suction air stream, as opposed to reducing the effect of turbulence on the suction air stream, as required by amended claims 1 and 2.

In so far as the current rejection may be applicable to new claim 16, the *Takeda* patent fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

In so far as the current rejection may be applicable to new claim 17, the *Takeda* patent fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

Accordingly, since the *Takeda* patent fails to disclose the suction air stream following a linear path and a dust removing unit disposed on a linear path of the suction air stream, and that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2, withdrawal of this rejection is respectfully requested.

6. Rejection of claims 1-6 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 3,841,067 (*Kato et al.*)

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 1 and 2, on the basis that the *Kato* patent fails to disclose each and every limitation of amended claims 1 and 2. The remaining claims depend from either claim 1 or 2, and are therefore patentable as containing all of the limitations of claims 1 or 2, as well as for their respective recited features.

The *Kato* patent fails to disclose the suction air stream following a linear path and a dust removing unit disposed on the linear path of the suction air stream, and that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2.

The *Kato* patent discloses a vacuum cleaner having a filter drum 32 (col. 2, lines 57-63). As is shown in Figs. 1-4, the filter drum is shaped as a hollow, generally circular cylinder (col. 3, lines 1-2). The filter drum 32 is hermetically sealed with a supporting plate 34 on a rear end (Fig. 1; col. 3, lines 6-8). The filter drum is also hermetically sealed to an end plate 38 at the opposing end (Fig. 1; col. 3, lines 10-11). Thus, the suction air stream must enter the filter drum 32 from the sides.

Accordingly, in contrast to amended claims 1 and 2, the suction air stream of the *Kato* patent does not follow a linear path, but instead follows a tortuous path through the suction port 26, around the end plate 38, through the sides of the filter

drum, around and through the supporting plate 34 to the blower 16 (see Figs. 1 and 3). Thus, it is clear that the *Kato* patent fails to disclose the suction air stream flowing in a linear path through the dust collecting unit and in to the blower.

Furthermore, as shown in Figs. 1 and 2 of the *Kato* patent, the resilient coil 54 functioning as the dust removing unit is rotated such that a free end of the resilient coil 54 passes over the radially innermost ends of the vibratile strips 44. Since the resilient coil 54 always rotates around the center shaft 46, the resilient coil 54 cannot be placed on the linear path in which the suction stream passes through the dust collecting unit into the electric blower, as required by amended claims 1 and 2.

In so far as the current rejection may be applicable to new claim 16, the *Kato* patent fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

In so far as the current rejection may be applicable to new claim 17, the *Kato* patent fails to disclose a dust removing unit having a plurality of air permeable openings of a grid shape.

Accordingly, since the *Kato* patent fails to disclose the suction air stream following a linear path and a dust removing unit disposed on the linear path of the suction air stream, and that allows the suction air stream to pass therethrough, as required by amended claims 1 and 2, withdrawal of this rejection is respectfully requested.

7. Rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Japanese publication no. JP 405192278A (*Murata et al.*) in view of U.S. patent no. 5,035,024 (*Steiner et al.*)

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 11.

In this regard, the applicants wish to point out the basic requirements of a *prima facie* case of obviousness as set forth in MPEP § 2143. This section states that to establish a *prima facie* case of obviousness, three basic criteria must first be met. First,

there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference's teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations.

Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in the applicant's own disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (fed.cir.1991).

Further, MPEP § 2143.03 states that all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a Claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1998).

Each of the three requirements required to establish a *prima facie* case of obviousness are discussed below.

A. The cited references do not disclose or suggest every claimed limitation

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 11 because the cited references fail to disclose or suggest every limitation of pending claim 11.

As acknowledged in the Office action dated December 6, 2006, on page 5, paragraph no. 12, the *Murata* publication fails to disclose at least one portion of the main body being transparent or translucent so that a user can see an operation of the dust removing unit, as required by pending claim 11.



The rejection attempts to cure the acknowledged deficiency of the *Murata* publication with a teaching provided by the *Steiner* patent. Specifically, the *Steiner* patent discloses a vacuum cleaner 1, having a nozzle/debris container 7 affixed to a main body or housing 9, 11 (col. 5, lines 9-11). The *Steiner* patent does disclose that the nozzle/dust container portion 7 is transparent (col. 5, lines 40-45). However, the *Steiner* patent fails to disclose a dust removing unit for removing dirt particles adhered to the dust collecting unit and at least one portion of the main body being transparent or translucent so that a user can see an operation of the dust removing unit, as required by pending claim 11.

Since the nozzle/debris container 7 forms the dust collecting unit, and is not the main body, problems associated with dust particles clogging filter bags are avoided. Thus, no dust removing unit is necessary, the dust is simply retained in the nozzle portion 7. Accordingly, the nozzle/debris container 7 is made from a transparent plastic so that a user may see the amount of dust that has collected within the container 7 (col. 5, lines 40-45). However, the user cannot see an operation of a dust removing unit, as required by pending claim 11, since the *Steiner* patent fails to disclose a dust removing unit.

Accordingly, the combination of the *Murata* publication and the *Steiner* patent fails to disclose a vacuum cleaner having a dust removing unit for removing dirt particles adhered to the dust collecting unit and at least one portion of the main body being transparent or translucent so that a user can see an operation of the dust removing unit, as required by pending claim 11.

Therefore, withdrawal of this rejection is respectfully requested.

B. There is no motivation to combine the cited references

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 11 because there is no suggestion or motivation to combine the cited references.

The rejection relies on the teaching in the *Steiner* patent that suggests a skilled artisan would have constructed a nozzle that acts as a dust collector from a transparent material, so that a user may see the amount of debris collected (col. 5, lines 40-45). While this is true for vacuum cleaners that have no bag, and the nozzle itself acts as the debris collector, the same does not apply to vacuum cleaners of the type disclosed by the *Murata* publication.

Specifically, the *Murata* publication discloses a dust collection bag 10 located within a dust collection chamber or nozzle portion 11 (abstract). For reason discussed below, a skilled artisan would not have been motivated to provide the transparent nozzle/debris container of the *Steiner* patent to the vacuum cleaner of the *Murata* publication.

Since the *Murata* publication discloses a dust collection bag 10, unless the dust collection bag were also constructed of a transparent material, which there is no disclosure or suggestion for, simply constructing the dust collection chamber 11 of the *Murata* publication from a transparent material would not allow the user to see the amount of debris collected. Thus, the reason for combining the references relied upon in the rejection is not sufficient to have motivated a skilled artisan to make such a combination.

Additionally, due to the tendency of dust collections bags to expand to the full extent that they are capable of while the vacuum cleaner is turned on, even if the dust collection chamber of the *Murata* publication were transparent, the user would further not be able to judge the amount of debris collected from the size of the dust collection bag. Thus, the reason for combining the references relied upon in the rejection is not sufficient to have motivated a skilled artisan to make such a combination.

Therefore, since a skilled artisan would not have been motivated to combine the cited references, a *prima facie* case of obviousness cannot be maintained, and withdrawal of this rejection is respectfully requested.

C. There is no reasonable expectation of success

Reconsideration of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 11 because there is no reasonable expectation of successfully combining the cited references.

As discussed above in section B, even if the combination of the *Murata* publication and the *Steiner* patent were made, a user would not be able to determine the amount of debris that is collected. Thus, there is no reasonable expectation of successfully combining the *Murata* publication and the *Steiner* patent.

Additionally, even if such a combination were made, there is no reasonable expectation that the combination would disclose every limitation of pending claim 11, since, as discussed above in section A, the *Steiner* patent merely discloses a debris container that is transparent, and not a main body that is transparent.

Accordingly, since there is no reasonable expectation of successfully combining the references, a *prima facie* case of obviousness cannot be maintained and withdrawal of this rejection is respectfully requested.

8. Allowable subject matter

The applicants gratefully acknowledge the indicated allowability of claims 12-14.

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Examiner: TILL, Terrence R.  
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9. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC  
625 Slaters Lane, Fourth Floor  
Alexandria, Virginia 22314-1176  
Phone: (703) 683-0500  
Facsimile: (703) 683-1080

Date: March 6, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Justin J. Cassell", written over a horizontal line.

JUSTIN J. CASSELL  
Attorney for Applicants  
Registration No. 46,205